STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P- 100507
PLACE ID 4296, LTF None

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, ASARCO Incorporated is hereby authorized to operate the ASARCO Hayden Operations located near the town of Hayden, Arizona, over groundwater of the Gila River groundwater basin in parts of Sections 8-12, 14-16, 21-23, and 26-28, Township 5 South, Range 15 East of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods), unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below, or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant, and as determined at the applicable POC, occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name: ASARCO, LLC-Hayden Operations

Permittee:	**Mailing Address:**	**Facility's Street Address:**
ASARCO, LLC	ASARCO Ray Complex Hayden Operations P.O. Box 8 Hayden, Arizona 85235	State Hwy. 177 Near Kearney, AZ Pinal County

Facility Contact: Jack Garrity Technical Services Manager (520) 356-3284

Emergency Telephone Number: (520) 356-3284

Latitude: 33° 00' 15" N **Longitude:** 110° 46' 59" W

Legal Description: Parts of Sections 8-12, 14-16, 21-23, and 26-28, Township 5 South, Range 15 East of the Gila and Salt River Base Line and Meridian.

1.2 AUTHORIZING SIGNATURE

_____

Joan Card, Director
Water Quality Division
Arizona Department of Environmental Quality
Signed this _____day of _____, 2008

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The Hayden Operations primarily include the following components:
- Assay and metalurgical laboratories (2)
- Solid waste landfills (4)
- Primary copper smelter
- Concentrate and byproduct storage areas
- Slag deposition areas (active and inactive)
- Rail and truck acid loading stations and storage tanks
- Sulfuric acid plant, concentrate filter plant and lime mixing system
- Petroleum product storage tanks
- Copper concentrator and crusher
- Vehicle wash racks
- Water treatment plants
- Inactive limestone quarry
- AB-BC and D Tailings Impoundments

Hayden receives sulfide ore from the Ray Mine via the Copper Basin railroad, which delivers seven times a day in railcars having a 100-ton capacity each. Secondary and tertiary crushing, conveying, and rod and ball milling are performed. This is followed by flotation, filtering and smelting. Tailings generated in the flotation process are deposited at the AB-BC and D tailings impoundments. Low grade slag resulting from the smelting process is deposited in the slag deposition area. Higher grade slag and some byproducts are recycled through the crushing, milling, and flotation systems.

During the copper extraction process, procedures are employed to minimize waste products. Water is recycled within the process. Sulfuric acid, produced as a co-product from air pollution control equipment at the smelter is either used at the Ray Mine or sold. Copper anodes produced by the Hayden Smelter contain over 98 percent copper. The primary source of fresh water for the Hayden Operations is groundwater wells located in the floodplains of the Gila and San Pedro Rivers.

The Hayden operation receives wastewater from the Town of Hayden. The wastewater is injected into the tailing disposal pipeline and conveyed to the three tailing deposition areas. The tailing slurry is spigoted around the periphery of the impoundments, and water is reclaimed from the central areas of the impoundments where it ponds during active deposition. The reclaimed water is conveyed by pipeline to basins adjacent to the reclaim pump station near the Hayden Golf Course and them pumped to storage/head tanks for re-use in the grinding and flotation processes. In the event of a power outage, the in-process tailing volume flows by gravity to an emergency pond on the lower elevation of the tailing disposal facility. Accumulated material in the emergency pond is removed as needed to the upper areas of the tailing structure. A wastewater disposal plan shall be provided within 6 months of permit issuance and is included in the compliance schedule. This plan will include a schedule to discontinue the wastewater discharge to the tailings impoundments within 1 year of permit issuance.

The following discharging facilities will be further evaluated under the compliance schedule. This permit authorizes the operation of the discharging facilities listed below:

2.1.1 Smelter Last Chance Pond (D1)(Non-Stormwater Impoundment)
2.1.2 Smelter Last Chance Pump Station (D1.2)(Non-Stormwater Impoundment)
2.1.3 Solid Waste Landfill (D8)
2.1.4 Solid Waste Landfill (D8.3)
2.1.5 Runoff Collection Sump (D14.4)(Non-Stormwater Impoundment)
2.1.6 Powerhouse and Secondary Pump Reservoir (D19)(Non-Stormwater Impoundment)
2.1.7 Concentrator Runoff Ponds (Winn's Pond)(D23)(Non-Stormwater Impoundment)

2.1.8 Smelter Lined Impoundment for Calcium Sulfate Sludge (D28.5)(Non-Stormwater Impoundment)
2.1.9 Solid Waste Landfill (D32)
2.1.10 Containment Pond #1 (D34)(Non-Stormwater Impoundment)
2.1.11 Terrace Pond (D34.1)(Non-Stormwater Impoundment)
2.1.12 North Ponds (D34.2)(Non-Stormwater Impoundment)
2.1.13 Wimpey's Pond (D34.3)(Non-Stormwater Impoundment)
2.1.14 East Ponds (D39) (Non-Stormwater Impoundment)
2.1.15 South Ponds (D39.1) (Non-Stormwater Impoundment)
2.1.16 Solid Waste Landfill (D41.1)
2.1.17 Water Reclamation Ponds (D42.1) (Non-Stormwater Impoundment)
2.1.18 Tailings Last Chance Basin (D42.2) (Non-Stormwater Impoundment)

The following storage areas will be further evaluated under the compliance schedule.

2.1.19 Chemical Storage at Filter Plant (D3.1)
2.1.20 Concentrate Storage Area and Unloading (D3.2)
2.1.21 Hazardous Waste Storage Building (D5.8)
2.1.22 Container Storage Area (D8.1)
2.1.23 Container Storage Area (D11.3)
2.1.24 Crusher Oil Storage Area (D12.2)
2.1.25 Reagent Storage Area (D15)
2.1.26 PCB Storage Area (D15.1)
2.1.27 Concentrator Shops(D16)
2.1.28 Warehouse Storage Yard (D18.1)
2.1.29 Revert Storage Area (D27.5)
2.1.30 Chemical Storage (D28.2)
2.1.31 Filter Cake Storage Pad (D28.3)
2.1.32 New Oil Storage (D30.2)
2.1.33 Storage yard (D31)
2.1.34 Drum Storage Yard (D31.1)
2.1.35 Storage Yard (D33)
2.1.36 Contactors Storage Area (D35)
2.1.37 Assay Lab Storage Area (D38)
2.1.38 Revert Storage (D40)

The following facilities will be further evaluated under the compliance schedule:

2.1.39 Small Screening Plant (D7)
2.1.40 Truck Unloading Area (D9.2)
2.1.41 Truck Unloading Area (D9.3)
2.1.42 Secondary/Tertiary Crusher (D12)
2.1.43 Railcar Trackhopper Site (D12.1)
2.1.44 #9 Belt Conveyor (D12.3)
2.1.45 Slag Storage Bunker (D13.2)
2.1.46 Mill Section 5,6 & 7 Overflow Sump (D13.3)
2.1.47 Former Molybdenum Plant (D14.1)
2.1.48 Tailings Pump House / Sump (D14.6)
2.1.49 Utility Tunnel (D14.7)
2.1.50 Gravity Bins (D14.8)
2.1.51 Truck Wash Facility (D19.1A)
2.1.52 Wash Rack (D21.1)
2.1.53 Concentrator Assay Lab (D22)
2.1.54 PCS Soil Volatilization Area (D25.2)

2.1.55 Revert Crusher (D26.1)
2.1.56 Delumper Pad (D26.10)
2.1.57 Flash Cooling Tower (D26.11)
2.1.58 Fluor Cooling Tower (D26.12)
2.1.59 Concentrate Bedding Plant (D26.4)
2.1.60 Wet Gas Handling System Saturation Tower (D26.7)
2.1.61 Slag ESCV Tunnel Sump (D26.8)
2.1.62 Flash Furnace Clarifier Containment (D26.9)
2.1.63 New Acid Plant (D27)
2.1.64 Transformer Room (D27.1)
2.1.65 Acid Loading Area (D27.4)
2.1.66 Marley Cooling Tower (D27.6)
2.1.67 Lilly Hoffman Cooling Tower (D27.7)
2.1.68 Mist Precipitator Sump (D27.8)
2.1.69 Crane Cooler Sump (D27.9)
2.1.70 Acid Plant Pugmill (D27.10)
2.1.71 Water treatment Plant for Contact Blowdown (D28)
2.1.72 Smelter Main Gate Stormwater Impoundment (D28.7)
2.1.73 Smelter Truck Shop, Steel Shop, and Warehouse (D30)
2.174 Paint Storage Building (D30.1)
2.1.75 Railcar Maintenance Pit (D30.4)
2.1.76 Truck Wash (D30.6)
2.1.77 Anode Cooling Tower (D30.8)
2.1.78 Slag Deposition Area (D36)
2.1.79 Tank Car Cleaning Facility (D37.3)
2.1.80 Assay Lab (D38.2)
2.1.81 Sample Bucking Room (D38.3)

The following tailings facilities will be further evaluated under the compliance schedule:

2.1.82 AB-BC Tailings (D42)(Tailings Impoundment)
2.1.83 D Tailings (E1)(Tailings Impoundment)

Annual Registration Fee [A.R.S. § 49-242]
The Annual Registration Fee for this permit is established by A.R.S. § 49-242 and is payable to ADEQ each year. The design flow is 10 million gallons per day or more.

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]
The permittee shall be required to demonstrate financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall be required to maintain financial capability throughout the life of the facility. The closure and post-closure costs have been estimated at $ 10,092,157 and $1,842,000, respectively. The financial assurance mechanism shall be demonstrated through A.A.C. R18-9-A203(C). Updated closure costs, post-closure costs and the associated financial assurance mechanism shall be provided within 3 months of permit issuance and is included in the Compliance Schedule, Section 3.0 of the permit.

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

All facilities will be evaluated for compliance with BADCT under the Compliance Schedule, Section 3.0. BADCT requirements will be amended to the permit as Table 4.1.1.

2.2.1 Engineering Design

All facilities will be evaluated for compliance with BADCT under the Compliance Schedule, Section 3.0.

2.2.2 Site-specific Characteristics
Not applicable.

2.2.3 Pre-Operational Requirements
Not applicable.

2.2.4 Operational Requirements
The permit shall be amended to incorporate inspections and operational monitoring into Section 4.0, Table 4.2.1 upon review of the BADCT submitted under the Compliance Schedule, Section 3.0**.**

At a minimum, permitted facilities shall be inspected for performance levels listed in Section 4.0, Table 4.2.1. Results of these inspections and monitoring activities shall be documented and maintained on location for at least 10 years, as required by Section 2.7.2 of this permit.
If damage is identified during an inspection that could cause or contribute to a discharge, proper repairs shall be promptly performed.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]
The permittee shall operate and maintain all permitted facilities listed below to prevent, unauthorized discharges as defined in A.R.S. §§ 49-201(12) that result from failure or bypassing of BADCT pollutant control technologies including liner failure[1], uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), berm breaches that result in an unexpected loss of fluid, accidental spills, or other unauthorized discharges. The discharge limitations in this section are not applicable to any discharge caused by precipitation in excess of a single 100-yr, 24-hour storm event or process overflow during a power outage exceeding 24 hours in duration.

2.3.1 Process Solution Impoundments
The process solution impoundments are designed and authorized to receive and contain process solutions, stormwater, and process upset events.

2.3.2 Non-Stormwater Impoundments
The permitted non-stormwater impoundments are authorized to receive and contain stormwater runoff and run-on, and process solutions as a result of storm events or process upset events.

2.4 Point(s) of Compliance (P.O.C.) [A.R.S. § 49-244]
There are five (5) established POC well locations in this permit. In addition, there are three (3) established wells designated as alert level wells. Table 2.4.1 lists the POC locations. Table 2.4.2 lists the locations of the alert level (AL) wells.

TABLE 2.4.1
POINTS OF COMPLIANCE (POC) FOR ASARCO HAYDEN OPERATIONS

Well Number	Designation	Cadastral Location	Latitude North	Longitude West	ADWR Number
H-1	Hazardous/Non-Hazardous	D(5-15)8dad	33° 00’ 00”	110° 45’ 57”	55-535503
H-3	Hazardous/Non-Hazardous	D(5-15)8cab	32° 59’ 43”	110° 49’ 08”	55-535507
H-5	Hazardous/Non-Hazardous	D(5-15)16dad	32° 59’ 56”	110° 48’ 48”	55-535508
H-6	Hazardous/Non-Hazardous	D(5-15)13bda	32° 59’ 52”	110° 45’ 58”	55-535504
H-8	Hazardous/Non-Hazardous	D(5-15)15aad	33° 00’ 10”	110° 47’ 31”	55-539676

[1] Liner failure in a single-lined impoundment is any condition that would result in a leakage exceeding 550 gallons per day per acre.

Monitoring requirements for each P.O.C. are listed in Section 4.0, Tables 4.2.2 and 4.2.4**.** The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

TABLE 2.4.2
ALERT LEVEL WELL LOCATIONS

Well Number	Designation	Cadastral Location	Latitude North	Longitude West	ADWR Number
ARU-4	Hazardous/Non-Hazardous	D(5-15)22bbd	32° 59’ 17”	110° 48’ 22”	55-617396
H-9	Hazardous/Non-Hazardous	D(5-15)14bdc	32° 59’ 55”	110° 47’ 07”	55-539675
H-11	Hazardous/Non-Hazardous	D(5-15)14cac	32° 59’ 32”	110° 47’ 07”	55-543975

Monitoring requirements for the alert level wells are listed in Section 4.0, Table 4.2.3.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and EPA 40 CFR PART 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Discharge Monitoring

None required by this permit.

2.5.2 Facility / Operational Monitoring

The operational monitoring requirements for the facilities are listed in Section 4.0, Table 4.2.1.

2.5.3 Groundwater Monitoring and Sampling Protocols

2.5.3.1 Groundwater Sampling Protocol

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as “dry” for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the Self Monitoring Report Form (SMRF).

As an alternative method for sampling, the permittee may conduct the sampling using the low-flow purging method as described in the Arizona Water Resources Research Center, March 1995 *Field Manual for Water Quality Sampling*. The well must be purged until indicator parameters stabilize. Indicator parameters shall include dissolved oxygen, turbidity, pH, temperature, and conductivity.

2.5.3.2 Ambient Groundwater Quality Monitoring for POC and AL Wells

Eight (8) consecutive groundwater samples must be completed to establish existing ambient groundwater quality conditions for evaluating any short-term or long-term changes in water quality. Each ambient groundwater sample, as applicable, shall be analyzed for the parameters listed in Section 4.0, Tables 4.2.2 and 4.2.3. The existing POC wells shall be monitored for those constituents listed as "reserved" in Section 4.0, Table 4.2.4., as required in the Compliance Schedule, Section 3.

2.5.3.3 Alert Levels for POC and AL Wells

Alert levels (AL) shall be calculated for all contaminants with established AWQS for each POC and AL well. The AL and aquifer quality Limit (AQL) for each parameter for which the ambient sampling has been completed, are listed in Section 4.0, Tables 4.2.2, 4.2.3, and 4.2.4. For those parameters for which the required ambient samples have not been completed, within ninety (90) days of receipt of the laboratory analyses for the final month of the ambient groundwater monitoring period for each POC and AL well referenced in Section 2.4, the permittee shall submit the ambient groundwater monitoring data in tabulated form to the ADEQ Groundwater Section for review. Copies of all laboratory analytical reports, field notes, the Quality Assurance/Quality Control (QA/QC) procedures used in collection and analysis of the samples, and a report including the statistical calculation of the alert levels (ALs) and aquifer quality limits (AQLs) for all parameters listed in Section 4.0, Tables 4.2.2 and 4.2.4, to be established for each of the POC or alert level wells, shall be included. The permittee may submit a report with the calculations for each AL and AQL included in the permit for review and approval by ADEQ, or the permittee may defer calculation of the ALs and AQLs by the Groundwater Section (GWS). The ALs shall be established and calculated by the following formula, or another valid statistical method submitted to the GWS in writing and approved for this permit by the GWS.

$AL = 0 + K\Phi$

Where 0 = mean, Φ = standard deviation, and K = one-sided normal tolerance interval with a 95% confidence level (Lieberman, G.J. (1958) Tables for One-sided Statistical Tolerance Limits: Industrial Quality Control, Vol. XIV, No. 10). Obvious outliers should be excluded from the data used in the AL calculation.

The following criteria shall be met in establishing ALs in the permit:

1. The AL will be calculated for a parameter using the analyses from a minimum of eight (8) consecutive sample rounds. The permittee shall not use more than eight (8) sample rounds in the calculation.
2. Any data where the PQL exceeds 80% of the AWQS shall not be included in the AL calculation.
3. If a parameter is below the detection limit, the permittee must report the value as "less than" the numeric value for the PQL or detection limit for the parameter, not just as "non-detect". For those parameters, the permittee shall use a value of one-half the reported detection limit for the AL calculation.
4. If the analytical results from more than 50% of the samples for a specific parameter are non-detect, then the AL shall be set at 80% of the AWQS.
5. If the calculated AL for a specific constituent and well is less than 80% of the AWQS, the AL shall be set at 80% of the AWQS for that constituent in that well.

2.5.3.4 Aquifer Quality Limits for POC Wells

AQLs will be established in the permit for all parameters listed in Section 4.0, Table 4.2.4 for which an AWQS has been adopted. AQLs shall not be set at the AL wells. For each of the monitored analytes for which a numeric AWQS has been adopted, the AQL shall be established as follows:

1. If the calculated AL is less than the AWQS, then the AQL shall be set equal to the AWQS.
2. If the calculated AL is greater than the AWQS, then the AQL shall be set equal to the calculated AL value, and no AL shall be set for that constituent at that monitoring point.

2.5.3.5 Compliance Groundwater Quality Monitoring for POC and AL Wells

Quarterly compliance groundwater monitoring in each POC and AL well shall commence within the first calendar quarter after the effective date of this permit. The parameters to be analyzed for quarterly compliance monitoring are listed in Section 4.0, Tables 4.2.2 and 4.2.3**.** In addition to quarterly compliance groundwater monitoring for parameters listed in Section 4.0, Table 4.2.2 for POC wells; an extended list of parameters shall be monitored at each POC well once every two (2) years (biennial). For the biennial monitoring events, the parameters listed in Section 4.0, Table 4.2.4 shall be analyzed. The biennial sampling event shall replace the regularly scheduled quarterly sampling event.

The permittee may submit a written request to the Groundwater Section (GWS) to reduce the monitoring parameters in either the Quarterly or the Biennial Compliance Groundwater Monitoring Tables (Section 4.0, Tables 4.2.2, 4.2.3, and 4.2.4) in accordance with the following criteria:

1. The parameter in question has not been detected for at least two (2) consecutive biennial or four (4) consecutive quarterly monitoring events in the well. The PQL reported by the laboratory shall be less than 80% of the established numeric AWQS, and shall not be greater than three (3) times the laboratory method detection limit for that parameter.
2. The permittee shall submit a written report indicating the parameter(s) proposed for modification, accompanied by supporting data, including laboratory analytical reports and quality assurance/quality control data, to the ADEQ GWS for review.
3. Upon review, the GWS will determine if the modification(s) requested is justified and approved. The respective changes, if approved, shall require an amendment to the permit.

2.5.3.6 POC Well Replacement

In the event that one or more of the designated POC wells should become unusable or inaccessible due to damage, insufficient water in the well for more than 2 sampling events, or any other event, a replacement POC well shall be constructed and installed upon approval by ADEQ.

2.5.4 Surface Water Monitoring and Sampling Protocols

None required by this permit.

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona state certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Avenue
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new points.

2.6 Contingency Plan Requirements
[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of the approved contingency and emergency response plan(s) submitted in response to the compliance schedule (Section 3.0) shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any alert level (AL) that is exceeded or any violation of an aquifer quality limit (AQL), discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.2 Exceeding of Alert Levels

2.6.2.1 Exceeding of Alert Levels Set for Operational Conditions

1. Performance Levels Set for Freeboard

In the event that freeboard performance levels in a surface impoundment are not maintained, the permittee shall:

a. As soon as practicable, cease or reduce discharging to the impoundment to prevent overtopping. Remove and properly dispose or recycle to other operations the excess fluid in the impoundment until the water level is restored at or below the permitted freeboard limit.
b. Within 5 days of discovery, evaluate the cause of the incident and adjust operational conditions as necessary to avoid future occurrences.
c. Record in the facility log, the amount of fluid removed, a description of the removal method, and the disposal arrangements. The facility log shall be maintained according to Section 2.7.2 (Operational Inspection / Log Book

Recordkeeping). Records documenting each freeboard incident and actions taken to correct the problem shall be included in the current report as required in Section 2.7.1 (Self Monitoring Report Forms).

d. The facility is no longer on alert status once the operational indicator no longer indicates that the freeboard performance level is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2. Performance Levels, Other Than Freeboard

a. If an operational AL listed in Section 4.0, Table 4.2.1 has been observed or noted during required inspection and operational monitoring, such that the result could cause or contribute to an unauthorized discharge or exceedance of an AL or violation of an AQL, the permittee shall immediately investigate to determine the cause of the condition. The investigation shall include the following:

i. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the operational performance condition.

ii. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences.

b. The AL exceedance, results of the investigation, and any corrective action taken shall be reported to the Water Quality Compliance Section (WQCS), within thirty (30) days of the discovery of the condition. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.

c. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 3.0 and any specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.

2.6.2.2 Exceeding of Alert Levels Set for Discharge Monitoring

Not applicable.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

None required by this permit.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.0, Tables 4.2.2, 4.2.3, or 4.2.4 has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AL being exceeded. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms the AL being exceeded or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to monthly. In addition, the permittee shall immediately initiate an investigation of the cause of the AL being exceeded, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in a discharge resulting in

the exceedance of an AL, and hydrologic review of groundwater conditions including upgradient water quality.

3. The permittee shall initiate actions identified in the approved contingency plan and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Groundwater Section.
4. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the Water Quality Compliance Section, Data Unit along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.
5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, or other actions.
6. The increased monitoring required as a result of ALs being exceeded may be reduced to the regularly scheduled frequency, if the results of three (3) consecutive monthly sampling events demonstrate that no parameters exceed the AL.

2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

None required by this permit.

2.6.3 Discharge Limitations (DL) Violations

If a DL set in Section 2.3 has been violated, the permittee shall immediately investigate to determine the cause of the violation.

2.6.3.1 Liner Failure, Containment Structure Failure, or Unexpected Loss of Fluid

In the event of liner failure, containment structure failure, or unexpected loss of fluid as described in Section 2.3, the permittee shall take the following actions:

1. As soon as practicable, cease all discharges to the surface impoundment as necessary to prevent any further releases to the environment.
2. Within 24-hours of discovery, notify the ADEQ Water Quality Compliance Section.
3. Within five (5) days of discovery of a failure that resulted in a release to the subsurface, collect representative samples of the fluid remaining in the surface impoundment. Samples shall be analyzed for the parameters specified in Section 4.0, Table 4.2.4. Within thirty (30) days of the incident, submit a copy of the analytical results to ADEQ Water Quality Compliance Section.
4. Within fifteen (15) days of discovery, initiate an evaluation to determine the cause for the incident. Identify the circumstances that resulted in the failure and assess the condition of the surface impoundment and liner system. Implement corrective actions as necessary to resolve the problems identified in the evaluation. Initiate repairs to any failed liner, system, structure, or other component as needed to restore proper functioning of the surface impoundment. The permittee shall not resume discharging to the surface impoundment until repairs of any failed liner or structure are performed. Repair procedures, methods, and materials used to restore the system(s) to proper operating condition shall be described in the facility

log/recordkeeping file and available for ADEQ review.

5. As soon as practicable, remove fluid remaining in the surface impoundment as necessary to prevent further releases to the subsurface and/or to perform repairs. Record in the facility log/recordkeeping file the amount of fluid removed, a description of the removal method, and other disposal arrangements. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection / Log/Recordkeeping File).
6. Within thirty (30) days of discovery of the incident, submit a report to ADEQ as specified in Section 2.7.3 (Permit Violation and AL Status Reporting). Include a description of the actions performed in Subsections 1 through 5 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial actions.
7. Within sixty (60) days of discovery, conclude an assessment of the impacts to the subsoil and/or groundwater resulting from the incident. If soil or groundwater is impacted such that it could cause or contribute to an exceedance of an AQL at the applicable point of compliance, within 120 days of discovery permittee shall submit to ADEQ, for approval, a corrective action plan to address such impacts, including identification of remedial actions and/or monitoring, and a schedule for completion of activities. At the direction of ADEQ, the permittee shall implement the approved plan.
8. Within thirty (30) days of completion of corrective actions, submit to ADEQ, a written report as specified in section 2.6.6 (Corrective Actions). Upon review of the report, ADEQ may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, mitigation, or other actions.

2.6.3.2 Overtopping of a Surface Impoundment

If overtopping of fluid from a permitted surface impoundment occurs, and results in a discharge pursuant to A.R.S. §§ 49-201(12), the permittee shall:

1. As soon as practicable, cease all discharges to the surface impoundment to prevent any further releases to the environment.
2. Within 24-hours of discovery, notify the ADEQ Water Quality Compliance Section.
3. Within five (5) days, collect representative samples of the fluid contained in the surface impoundment. Samples shall be analyzed for the parameters specified in Section 4.0, Table 4.2.4**.** Within thirty (30) days of the incident, submit a copy of the analytical results to ADEQ Water Quality Compliance Section.
4. As soon as practicable, remove and properly dispose of excess water in the impoundment until the water level is restored at or below the appropriate freeboard as described in Section 4.0, Table 4.1.1. Record in the facility log, the amount of fluid removed, a description of the removal method, and the disposal arrangements. The facility log/recordkeeping file shall be maintained according to Section 2.7.2 (Operation Inspection / Log/Recordkeeping File).
5. Within thirty (30) days of discovery, evaluate the cause of the overtopping and identify the circumstances that resulted in the incident. Implement corrective actions and adjust operational conditions as necessary to resolve the problems identified in the evaluation. Repair any systems as necessary to prevent future occurrences of overtopping.
6. Within thirty (30) days of discovery of overtopping, submit a report to ADEQ as specified in section 2.7.3.2 (Permit Violation and AL Status Reporting). Include a description of the actions performed in Subsections 1 through 5 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial actions.
7. Within sixty (60) days of discovery, and based on sampling in Subsection 3 above, conclude an assessment of the impacts to the subsoil and/or groundwater resulting from the incident.

8. If soil or groundwater is impacted such that it could cause or contribute to an exceedance of an AQL at the applicable point of compliance, within 120 days of discovery permittee shall submit to ADEQ for approval, a corrective action plan to address such impacts, including identification of remedial actions and/or monitoring, and a schedule for completion of activities. At the direction of ADEQ, the permittee shall implement the approved plan.
9. Within thirty (30) days of completion of corrective actions, submit to ADEQ, a written report as specified in Section 2.6.6 (Corrective Actions). Upon review of the report, ADEQ may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, mitigation, or other actions.

2.6.3.3 Inflows of Unexpected Materials to a Surface Impoundment

The types of materials that are expected to be placed in the permitted surface impoundments are specified in Section 2.3 (Discharge Limitations). If any unexpected materials flow to a permitted surface impoundment, the permittee shall:

1. As soon as practicable, cease all unexpected inflows to the surface impoundment(s).
2. Within 24-hours of discovery, notify the ADEQ Water Quality Compliance Section.
3. Within five (5) days of the incident, identify the source of the material and determine the cause for the inflow. Characterize the unexpected material and contents of the affected impoundment, and evaluate the volume and concentration of the material to determine if it is compatible with the surface impoundment liner. Based on the evaluation of the incident, repair any systems or equipment and/or adjust operations, as necessary to prevent future occurrences of inflows of unexpected materials.
4. Within thirty (30) days of an inflow of unexpected materials, submit a report to ADEQ as specified in Section 2.7.3 Permit Violation and AL Status Reporting). Include a description of the actions performed in Subsections 1 through 3 listed above. Upon review of the report, ADEQ may request additional monitoring or remedial actions.
5. Upon review of the report, ADEQ may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, mitigation, or other actions.

2.6.4 Aquifer Quality Limit (AQL) Violation

1. If an AQL set in Section 4.0, Tables 4.2.2, or 4.2.4 has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AQL being exceeded. The permittee may use the results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
2. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to monthly. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in a discharge that caused or may have caused the violation.

   The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to correct and mitigate the violation and cause of the violation. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 30 days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an

ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, mitigation, or other actions.
4. The permittee shall notify in writing any downstream or downgradient users who may be directly affected by the discharge.
5. The permittee shall continue monitoring at the increased frequency until the contaminant(s) is below the AQL and AL for at least three consecutive months, or as otherwise directed in an approved mitigation or corrective action plan.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. §49-241

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(18)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Water Quality Field Service Unit at (602) 771-4841 within 24-hours upon discovering the discharge of hazardous material which: a) has the potential to cause an AWQS or AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the Water Quality Compliance Section at (602) 771-4497 within 24-hours upon discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to Water Quality Compliance Section within thirty days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 and actions identified in the approved contingency plan referenced in Section 3.0 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL,

DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;
5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the permittee shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self Monitoring Report Form (SMRF)

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
3. The tables contained in Sections 4.0 list the parameters to be monitored and the frequency for reporting results for groundwater compliance monitoring. Analytical methods shall be recorded on the SMRFs.
4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector;
2. Date and shift inspection was conducted;
3. Condition of applicable facility components;
4. Any damage or malfunction, and the date and time any repairs were performed;
5. Documentation of sampling date and time;
6. Any other information required by this permit to be entered in the log book, and
7. Monitoring records for each measurement shall comply with R18-9 A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section Unit in writing within five days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition or discharge limitation, an AQL violation, or of an Alert Level being exceeded.
2. The permittee shall submit a written report to the Water Quality Compliance Section within 30 days of becoming aware of the violation of any permit condition or discharge limitation, an AQL violation, or an AL exceedance. The report shall document all of the following:

a. Identification and description of the permit condition for which there has been a violation and a description of its cause.
b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue.
c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation.
d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard.
e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring.
f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall, upon completion of the biennial sampling described in Table 4.2.4, submit a monitoring summary report to the Groundwater Section. This report shall be due at the same time as the SMRF form for the biennial sampling event. The report shall include, but not be limited to the following:

1. A description of any deviations from standard sampling protocols during the reporting period.
2. A summary of all exceedances of ALs, AQLs, Action Levels, or operational limits that occurred during the reporting period.
3 Graphical time versus concentration plots of field pH, sulfate, total dissolved solids, and any parameter which exceeded an applicable AL or AQL in the past eight quarters at each POC well, and tabulated sampling data for all wells required to be sampled by this permit during the last eight quarters.
4. An updated table of all monitor wells and piezometers in the Discharge Impact Area including, but not limited to, location of well, depth of well, depth to water.
5. A summary of any groundwater monitor wells replaced in the reporting period including, but not limited to, location of well, depth of well, depth to water, and screened interval.
6. A list of any new sumps, impoundments, or vehicle washes constructed within the pollutant management area, unless exempt or covered by a general APP.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
Water Quality Compliance Section, Data Unit
Mail Code: 5415B-1
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4513

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to:

Arizona Department of Environmental Quality
Water Quality Compliance Section
Mail Code: 5415B-1
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4497

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality
Groundwater Section
Mail Code: 5415B-3
1110 W. Washington Street
Phoenix, AZ 85007
Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

The following lists the biennial report due date:

Monitoring conducted during 2 year period:	Quarterly Report due by:
January 1st of the first year –December 31st of the second year	April 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Section and Water Quality Compliance Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Water Quality Compliance Section before ceasing operation of the facility for a period of 60 days or greater.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the permittee's intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Section, a Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(1)(a).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Section indicating that the approved Closure Plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of post-closure stated in this permit:

1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
2. Further action is necessary to keep the facility in compliance with aquifer water quality standards at the applicable point of compliance;
3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2;
5. Further action is necessary to meet property use restrictions.

2.10 Post-Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a Post-Closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-Closure Plan shall meet all requirements of A.R.S. §§ 49-201(29) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-Closure Plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-Closure Plan.

2.10.1 Post-Closure Plan

Reserved.

2.10.2 Post-Closure Completion

Reserved.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section, Data Unit. All items may result in action to amend this permit.

COMPLIANCE SCHEDULE

Item Description	Time to Complete	Requirements
Facility Description	Within 3 months of the effective date of permit	Permittee shall provide a description of all facilities described in Section 2.1. ASARCO shall submit an application for an other amendment that incorporates all items in this compliance schedule table.
Contingency and Emergency Response Plan	Within 3 months of the effective date of permit	Permittee shall submit for ADEQ approval a Contingency Plan that satisfies the requirements of Arizona Administrative Code R18-9-A204, including emergency response provisions. ASARCO shall submit an application for an other amendment that incorporates all items in this compliance schedule table.
Updated Closure and Post-Closure Plan and Costs	Within 3 months of the effective date of permit	Permittee shall provide updated closure and post closure plan and costs for the facilities listed in Section 2.1 of the permit. ASARCO shall submit an application for an other amendment that incorporates all items in this compliance schedule table.
Demonstration of Financial Capability	Within 3 months of the effective date of permit	Provide evidence of Financial Capability pursuant to A.A.C. R18-9-A203 based on updated closure and post closure costs. ASARCO shall submit an application for an other amendment that incorporates all items in this compliance schedule table.
Wastewater Disposal Plan	Within 6 months of the effective date of permit	Permittee shall provide a plan to discontinue the Town of Hayden Wastewater discharge to the Tailings Impoundments. The plan shall include a schedule to discontinue the discharge 1 year from permit issuance.

Operation Plan for the Water Treatment Plant for Contact Blowdown	Within 3 months of the effective date of permit	Provide operation plan to limit discharge of materials from the Water Treatment Plant containment area.

COMPLIANCE SCHEDULE FOR ENGINEERING/BADCT

ADEQ Facility No.	ASARCO Facility No.	ASARCO Facility Name	Facility Activity	Time to Complete (months after permit issuance)	Date Completed
Non-Stormwater Impoundments:					
1	D1	Smelter Last Chance Pond	BADCT is not demonstrated for these facilities. ASARCO shall submit an application for a significant permit amendment that includes a BADCT demonstration that complies with A.R.S. § 49-243 and A.A.C. R18-9-A202 (1-5), including but not limited to the following: 1) Location within the general permit area (latitude and longitude). 2) Area contributing solution in-flow, and routing of out-flow. 3) Type and construction of impoundment (unlined or lined) with construction detail and specifications of liner material, dam, pond base and sidewalls, and compacting procedure/specification with resulting hydraulic conductivity of earth materials placed and compacted under the liner and other underlying geologic formations. 4) Liner type, with dimensions and design features of dam, berms, etc. with description of the material used in the design, the design freeboard for the scenarios of normal operating conditions and when meeting storage of process water plus storm water from a 100-year/24-hour storm event. Provide contained volume under each of these scenarios. 5) Description of any electric generators, pumps, and piping available on-site for use in an emergency to protect impoundment integrity. 6) Any other features of the design and material used in construction which contributes to minimizing groundwater pollution potential. 7) Date of closure, if applicable. 8) Submit a closure/post-closure strategy.	9	
2	D1.2	Smelter Last Chance Pump Station		9	
3	D8	Solid Waste Landfill		9	
4	D8.3	Solid Waste Landfill		9	
5	D14.4	Runoff Collection Sump		9	
6	D19	Powerhouse & Secondary Pump Reservoir		9	
7	D23	Concentrator Runoff Ponds (Winn's Pond)		9	
8	D28.5	Smelter Lined Impoundment for Calcium Sulfate Sludge (Non-Stormwater Impoundment)		9	
9	D32	Solid Waste Landfill		9	
10	D34	Containment Pond #1		9	
11	D34.1	Terrace Pond		9	
12	D34.2	North Ponds		9	
13	D34.3	Wimpey's Pond		9	
14	D39	East Ponds		9	

15	D39.1	South Ponds	NOTE: A quarterly water quality monitoring program checking Alert Levels (ALs or AQLs) at respective POC wells will verify effectiveness of BADCT for these facilities.	9	
16	D41.1	Solid Waste Landfill		9	
17	D42.1	Water Reclamation Ponds (Non-Stormwater Impoundment)		9	
18	D42.2	Tailings Last Chance Basin (Non-Stormwater Impoundment)		9	
Storage Areas:					
19	D3.1	Chemical Storage At Filter Plant	BADCT is not demonstrated for these facilities. ASARCO shall submit an application for a significant permit amendment that includes a BADCT demonstration that complies with A.R.S. § 49-243 and A.A.C. R18-9-A202 (1-5), including but not limited to the following: 1) Location within the general permit area (latitude and longitude). 2) Description of each material type placed in the facility, and a copy of the Material Safety Data Sheet. 3) Design and construction to control surface water run-on and run-off in the event of spillage. Special containment provisions, such as concrete slabs and pumps/sumps. Procedure/specification with resulting hydraulic conductivity of earth materials placed and compacted as part of storage pad construction. Provide the hydraulic conductivity of underlying geologic formations. 4) Description of the operating conditions, such as run-off handling during a 100-year/24-hour storm event. 5) Any other features of the design and material used in construction which contributes to minimizing groundwater pollution potential. 6) Date of closure, if applicable. 7) Submit a closure/post-closure strategy.	9	
20	D3.2	Concentrate Storage Area and Unloading		9	
21	D5.8	Hazardous Waste Storage Building		9	
22	D8.1	Container Storage Area		9	
23	D11.3	Container Storage Area		9	
24	D12.2	Crusher Oil Storage Area		9	
25	D15	Reagent Storage Area		9	
26	D15.1	PCB Storage Area		9	
27	D16	Concentrator Shops		9	
28	D18.1	Warehouse Storage Yard		9	
29	D27.5	Revert Storage Area		9	
30	D28.2	Chemical Storage		9	
31	D28.3	Filter Cake Storage Pad		9	

32	D30.2	New Oil Storage	NOTE: A quarterly water quality monitoring program checking Alert Levels (ALs or AQLs) at respective POC wells will verify effectiveness of BADCT for these facilities.	9	
33	D31	Storage Yard		9	
34	D31.1	Drum Storage Yard		9	
35	D33	Storage Yard		9	
36	D35	Contractors Storage Area		9	
37	D38	Assay Lab Storage Area		9	
38	D40	Revert Storage		9	
General Facilities:					
39	D7	Small Screening Plant	BADCT is not demonstrated for these facilities. ASARCO shall submit an application for a significant permit amendment that includes a BADCT demonstration that complies with A.R.S. § 49-243 and A.A.C. R18-9-A202 (1-5), including but not limited to the following: 1) Location within the general permit area (latitude and longitude). 2) For wash rack facilities D19.1A, D21.1, D30.6, and any other facilities containing equipment washing capability, provide design and construction detail for wash water containment, sumps, oil-water separation, oil salvage, and water disposal. 3) For other types of facilities in this section of the compliance table, provide description and design/construction detail, which contribute to minimizing groundwater pollution potential. 4) Date of closure, if applicable. 5) Submit a closure/post-closure strategy. NOTE: A quarterly water quality monitoring program checking Alert Levels (ALs or AQLs) at respective POC wells will verify effectiveness of BADCT for these facilities.	9	
40	D9.2	Truck Unloading Area		9	
41	D9.3	Truck Unloading Area		9	
42	D12	Secondary/Tertiary Crusher		9	
43	D12.1	Railcar Trackhopper Site		9	
44	D12.3	#9 Belt Conveyor		9	
45	D13.2	Slag Storage Bunker		9	
46	D13.3	Mill Section 5, 6 & 7 Overflow Sump		9	
47	D14.1	Former Molybdenum Plant		9	
48	D14.6	Tailings Pump House / Sump		9	
49	D14.7	Utility Tunnel		9	
50	D14.8	Gravity Bins		9	
51	D19.1A	Truck Wash Facility		9	
52	D21.1	Wash Rack		9	
53	D22	Concentrator Assay Lab		9	

54	D25.2	PCS Soil Volatilization Area		9	
55	D26.1	Revert Crusher		9	
56	D26.10	Delumper Pad		9	
57	D26.11	Flash Cooling Tower		9	
58	D26.12	Fluor Cooling Tower		9	
59	D26.4	Concentrate Bedding Plant		9	
60	D26.7	Wet Gas Handling System Saturation Tower		9	
61	D26.8	Slag ESCV Tunnel Sump		9	
62	D26.9	Flash Furnace Clarifier Containment		9	
63	D27	New Acid Plant		9	
64	D27.1	Transformer Room		9	
65	D27.4	Acid Loading Area		9	
66	D27.6	Marley Cooling Tower		9	

67	D27.7	Lilly Hoffman Cooling Tower		9	
68	D27.8	Mist Precipitator Sump		9	
69	D27.9	Crane Cooler Sump		9	
70	D27.10	Acid Plant Pugmill		9	
71	D28	Water Treatment Plant for Contact Blowdown		9	
72	D28.7	Smelter Main Gate Stormwater Impoundment		9	
73	D30	Smelter Truck Shop, Steel Shop, and Warehouse		9	
74	D30.1	Paint Storage Building		9	
75	D30.4	Railcar Maintenance Pit		9	
76	D30.6	Truck Wash		9	
77	D30.8	Anode Cooling Tower		9	
78	D36	Slag Deposition Area		9	
79	D37.3	Tank Car Cleaning Facility		9	
80	D38.2	Assay Lab		9	
81	D38.3	Sample Bucking Room		9	

Tailings Facilities:					
82	D42	AB-BC Tailings	BADCT is not demonstrated for these facilities. ASARCO shall submit an application for a significant permit amendment that includes a BADCT demonstration that complies with A.R.S. § 49-243 and A.A.C. R18-9-A202 (1-5), including but not limited to the following: 1) Location within the general permit area (latitude and longitude). 2) Map showing layout of pipeline distributing tailings to each of the tailing impoundments and design features of the pipeline. 3) History of tailing pipeline failures and location and extent of leakage. 4) Map showing surface water run-on diversion around tailings impoundments. If not diverted, describe how the run-on from a 100-yr/24-hour storm event is handled. Provide design features of the diversion facility. 5) Characterization of the solution and tailings. 6) Capacity and storage design of each tailings impoundment and associated seepage impoundments. Describe site preparation prior to placement of tailings in each impoundment. 7) Submit the stability design indicating the static factor of safety and the seismic stability factor of safety. 8) Submit a closure/post-closure strategy. NOTE: A quarterly water quality monitoring program checking Action Levels (ALs or AQLs) at respective POC wells will verify effectiveness of BADCT for these facilities.	9	
83	E1	D Tailings		9	

Site in General:					
84	N/A	Storm Water Run-on Diversion	BADCT is not demonstrated for these facilities. ASARCO shall submit an application for a significant permit amendment that includes a BADCT demonstration that complies with A.R.S. § 49-243 and A.A.C. R18-9-A202 (5), including but not limited to the following: 1) Location within the general permit area (latitude and longitude). 2) Map showing layout of diversion system. 3) Provide design features of the run-on diversion system to handle a 100-yr/24-hour storm event. 4) Submit a closure/post-closure strategy. NOTE: A quarterly water quality monitoring program checking Action Levels (ALs or AQLs) at respective POC wells will verify effectiveness of BADCT for these facilities.	9	

COMPLIANCE SCHEDULE – HYDROLOGY		
Item Description	**Time To Complete**	**Requirements**
Ambient Water Quality Monitoring: POC Wells H-1, H-3, H-5, H-6, and H-8	Within 12 months of the effective date of permit.	Each well must be sampled for ambient water quality for eight (8) months. Each sample must be analyzed for free cyanide, gross alpha particle activity, adjusted gross alpha particle activity, radium 226+radium 228, volatile organic compounds (EPA 8260), and semi-volatile organic compounds (EPA 8270).
Alert Level (AL) and Aquifer Quality Limit (AQL) calculations: POC Wells H-1, H-3, H-5, H-6, and H-8	Within 12 months of the effective date of permit.	Submit following completion of the ambient sampling period, copies of all laboratory analytical reports, field notes, the QA/QC data used in collection and analysis of the samples, and a report including the statistical calculations of the ALs and AQLs to ADEQ GWS. Incorporation of these data will constitute an other amendment to the permit, unless calculation of ALs and AQLs is left to ADEQ.

4.0 TABLES OF MONITORING REQUIREMENTS

4.1 FACILITY AND POC TABLES

TABLE 4.1.1 Permitted Facilities and BADCT (Reserved)

4.2 COMPLIANCE AND OPERATIONAL MONITORING

TABLE 4.2.1 Required Inspections and Operational Monitoring
TABLE 4.2.2 Quarterly Compliance Groundwater Monitoring for Points of Compliance
TABLE 4.2.3 Quarterly Compliance groundwater Monitoring for Alert level Wells
TABLE 4.2.4 Biennial Compliance Groundwater for Points of Compliance

4.3 SITE MAP

Attachment 1 Point of Compliance and Alert Level Well Locations

TABLE 4.2.1 **Required Inspections and Operational Monitoring**	
Facility Name **(#)**	**Operational Requirements**
Non-Stormwater Impoundments	
Smelter Last Chance Pond (D1) Smelter Last Chance Pump Station (D1.2) Runoff Collection Sump (D14.4) Powerhouse and Secondary Pump Reservoir (D19) Concentrator Runoff Ponds (Winn's Pond) (D23) Smelter Lined Impoundment for Calcium Sulfate Sludge (D28.5) Containment Pond #1 (D34) Terrace Pond (D34.1) North Ponds (D34.2)	**Monthly and following precipitation events measuring at least 1-inch in a 24-hour period:** Visually inspect and maintain a minimum of two feet of freeboard in impoundments. Visually inspect and take appropriate action if any evidence of: -perforation, cuts, tear, or otherwise damaged liner, or impairment of anchor trench integrity; -impairment of embankment integrity as applicable; -excessive erosion in conveyances and diversions; -excess accumulation of debris in conveyances or diversions; or, -impairment of access. At pump locations, inspect pumps, valves, and structures for pump operation and structural integrity. **Annually, or as needed:** Remove excess sediments/sludge from the impoundments, conveyances, and diversions as needed to maintain at least 80 percent of design capacity. **<u>Specific Requirement:</u>** Remove accumulated fluid from process solution or impacted stormwater due to process upset events and/or storm events, from the impoundment as soon as practical, but no later than 30 days after cessation of the upset or storm event. Note: These requirements will be updated based upon ADEQ review of the BADCT submittal required under the compliance schedule (Section 3.0).

TABLE 4.2.1 **Required Inspections and Operational Monitoring**	
Facility Name (#)	**Operational Requirements**
Wimpey's Pond (D34.3) East Ponds (D39) South Ponds (D39.1) Water Reclamation Ponds (D42.1) Tailings Last Chance Basin (D42.2)	
Tailings Impoundments	
AB-BC Tailings (D42) D Tailings (E1)	**Daily:** Visually inspect and maintain freeboard of at least four feet (Dam crest to decant elevation). Visually inspect and take appropriate action if any evidence of tailing dam deformation, including surface cracks, slides, sloughs, seeps, erosion features, or differential settlement affecting dam stability. **Quarterly:** Monitor piezometers and inclinometers along the tailing dam to maintain phreatic surface within safe operating limits and to ensure dam safety. Note: These requirements will be updated based upon ADEQ review of the BADCT submittal required under the compliance schedule (Section 3.0).

Table 4.2.2
Quarterly Compliance Groundwater Monitoring
for Points of Compliance (POC)

Parameter[2],[3]	H-1		H-3		H-5		H-6		H-8	
	AQL[4]	AL[5]	AQL	AL	AQL	AL	AQL	AL	AQL	AL
Depth to Water(in feet bgs)	Monitor[6]	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Level Elevation (in feet amsl)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Specific Conductance (µmhos/cm) – Field	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Temperature (^{0}F)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Field pH (S.U.)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total Dissolved Solids	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Sulfate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Nitrate+Nitrite	10	8	10	8	10	8	10	8	10	8
Fluoride	4.0	3.2	5.22	Monitor	4.0	3.2	4.0	3.2	4.0	3.2
Arsenic	0.050	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.050	0.04
Copper	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Selenium	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04

Use Table 4.2.4 parameter list for biennial sampling events.

[2] All concentrations are in milligrams per liter (mg/L) unless otherwise specified.
[3] Metals shall be analyzed as dissolved metals.
[4] AQL = Aquifer Quality Limit
[5] AL = Alert Level
[6] Monitor = Monitoring required, but no AQL or AL established in the permit.

Table 4.2.3
Quarterly Compliance Groundwater Monitoring for Alert Level (AL) Wells

Parameter[7],[8]	ARU-4		H-9		H-11	
	AQL[9]	AL[10]	AQL	AL	AQL	AL
Depth to Water (in feet bgs)	Monitor[11]	Monitor	Monitor	Monitor	Monitor	Monitor
Water Level Elevation (in feet amsl)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Specific Conductance (µmhos/cm) - Field	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Temperature (^{0}F)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Field pH (S.U.)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total Dissolved Solids	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Sulfate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Nitrate+Nitrite	Monitor	8	Monitor	8	Monitor	12.44
Fluoride	Monitor	3.2	Monitor	3.2	Monitor	3.2
Arsenic	Monitor	0.04	Monitor	0.04	Monitor	0.04
Copper	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Selenium	Monitor	0.04	Monitor	0.04	Monitor	0.04

Note: Biennial monitoring applies only to wells designated as POCs.

[7] All concentrations are in milligrams per liter (mg/L) unless otherwise specified.
[8] Metals shall be analyzed as dissolved metals.
[9] AQL = Aquifer Quality Limit
[10] AL = Alert Level
[11] Monitor = Monitoring required, but no AQL and/or AL established in the permit.

Table 4.2.4
Biennial Compliance Groundwater Monitoring
For Points of Compliance (POC)

Parameter[12],[13]	H-1		H-3		H-5		H-6		H-8	
	AQL[14]	AL[15]	AQL	AL	AQL	AL	AQL	AL	AQL	AL
Depth to Water (in feet bgs)	Monitor[16]	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Water Level Elevation (in feet amsl)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Specific Conductance (µmhos/cm) – Field	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Temperature (^{0}F)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Field pH (S.U.)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total Dissolved Solids	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Sulfate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total Alkalinity	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Carbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Bicarbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Chloride	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Fluoride	4.0	3.2	6.10	None	4.0	3.2	4.0	3.2	4.0	3.2
Nitrate-Nitrite as N	10	8	10	8	10	8	10	8	10	8
Calcium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Magnesium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Potassium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Sodium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Iron	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Antimony	0.006	0.0048	0.006	0.0048	0.006	0.0048	0.006	0.0048	0.006	0.0048
Arsenic	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04
Barium	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6
Beryllium	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032
Cadmium	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004

[12] Metals shall be analyzed as dissolved metals.
[13] All concentrations are in milligrams per liter (mg/L) unless otherwise specified.
[14] AQL = Aquifer Quality Limit
[15] AL = Alert Level
[16] Monitor = Monitoring required, but no AQL or AL established in the permit.

Table 4.2.4
Biennial Compliance Groundwater Monitoring
For Points of Compliance (POC)

Parameter[12],[13]	H-1		H-3		H-5		H-6		H-8	
	AQL[14]	AL[15]	AQL	AL	AQL	AL	AQL	AL	AQL	AL
Chromium	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08
Copper	Monitor[16]	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	None	None
Lead	0.050	0.040	0.050	0.040	0.050	0.040	0.050	0.040	0.050	0.040
Manganese	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Mercury	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016
Nickel	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08
Selenium	0.05	0.04	0.05	0.04	0.05	0.04	0.10	None	0.184	None
Thallium	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016
Zinc	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Cyanide (free)	Res.[17]	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
Gross Alpha Particle Activity (pCi/L)	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
Adjusted Gross Alpha Particle Activity (pCi/L)[18]	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
Radium 226 + Radium 228 (pCi/L)	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
Uranium (mg/L)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
VOC (EPA 8260)	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.
SVOC (EPA 8270)	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.	Res.

Use Table 4.2.2 parameter list for quarterly sampling events.

[12]Metals shall be analyzed as dissolved metals.
[13]All concentrations are in milligrams per liter (mg/L) unless otherwise specified.
[14]AQL = Aquifer Quality Limit
[15]AL = Alert Level
[16]Monitor = Monitoring required, but no AQL or AL established in the permit.
[17]Res. = Reserved. At the conclusion of eight (8) rounds of groundwater sampling, the permittee is required to submit an Ambient Groundwater Monitoring Report and permit amendment request to ADEQ GWS/PDRU to propose AQLs and ALs based on the ambient sampling data. The AQLs and ALs shall be calculated based on the criteria in 2.5.3.3 and 2.5.3.4. Either a numeric value or "None' shall be amended to the permit for the AQL or AL listed as "Reserved' in this table.
[18]If gross alpha particle activity is greater than fifteen (15) pCi/L, then test for and report adjusted gross alpha particle activity. The adjusted gross alpha particle activity is the gross alpha activity, including radium 226, minus radon and uranium (the sum of uranium 238, uranium 235 and uranium 234 isotopes) reported

in pCi/L.

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application, dated March 24, 1994.
2. Public Notice, dated _____.
3. Public Hearing, dated _____.
4. Responsiveness Summary, dated _____.
5. APP Master File, Inventory Number 100507.

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242.

6.2 Duty to Comply [A.R.S. §§ 49-221 through 49-263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability

[A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. The filing of bankruptcy by the permittee.
2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 41-1009, 49-203(B) and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices specified by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension & Revocation
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the Groundwater Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability
[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).